

ECUACIONES DE PRIMER GRADO

FICHA 3

Resuelve las siguientes ecuaciones:

a) $15x - 3[7x - 2(2x + 7)] = 6$

b) $x + 3(x + 2) = 5[(2 - 3x) - (x - 3)]$

c) $\frac{1}{8}(k - 2) - \frac{2}{3}(2k - 6) + k = 4$

d) $\frac{x - 3}{2} - \frac{x - 8}{12} = \frac{5 - x}{4} - \frac{x}{3}$

e) $t + \frac{3t - 1}{4} - \frac{t + 1}{5} + 1 - \frac{t - 2}{10} = 2(t + 1)$

SOLUCIONES

a) $15x - 3[7x - 4x - 14] = 6 \Rightarrow 15x - 21x + 12x + 42 = 6 \Rightarrow 6x = -36 \Rightarrow x = -6$

b) $x + 3x + 6 = 5[2 - 3x - x + 3] \Rightarrow 4x + 6 = 10 - 15x - 5x + 15 \Rightarrow 24x = 19 \Rightarrow x = \frac{19}{24}$

c) $\frac{k-2}{8} - \frac{4k-12}{3} + k = 4 \Rightarrow \frac{3k-6}{24} - \frac{32k-96}{24} + \frac{24k}{24} = \frac{96}{24} \Rightarrow 3k - 6 - 32k + 96 + 24k = 96$
 $\Rightarrow -5k = 96 + 6 - 96 \Rightarrow -5k = 6 \Rightarrow k = -\frac{6}{5}$

d) $\frac{6x-18}{12} - \frac{x-8}{12} = \frac{15-3x}{12} - \frac{4x}{12} \Rightarrow 6x - 18 - x + 8 = 15 - 3x - 4x \Rightarrow$
 $5x - 10 = 15 - 7x \Rightarrow 5x + 7x = 15 + 10 \Rightarrow 12x = 25 \Rightarrow x = \frac{25}{12}$

e) $\frac{20t}{20} + \frac{15t-5}{20} - \frac{4t+4}{20} + \frac{20}{20} - \frac{2t-4}{20} = \frac{40t+40}{20} \Rightarrow 20t + 15t - 5 - 4t - 4 + 20 - 2t + 4 = 40t + 40$
 $\Rightarrow 20t + 15t - 4t - 2t - 40t = 40 + 5 + 4 - 20 - 4 \Rightarrow -11t = 25 \Rightarrow t = -\frac{25}{11}$